

S1 Supporting Information: Detailed results

Table A: Experiment 1 questionnaire analysis (Wilcoxon signed-rank)

Statement	Compared conditions		Z	p
S1	VT _{congruent} VP _{match}	VT _{incongruent} VP _{match}	-3.13	.00175
	VT _{congruent} VP _{match}	VT _{congruent} VP _{mismatch}	-4.87	.00000114
	VT _{congruent} VP _{match}	VT _{incongruent} VP _{mismatch}	-5.43	.0000000560
	VT _{incongruent} VP _{match}	VT _{congruent} VP _{mismatch}	-3.04	.00235
	VT _{incongruent} VP _{match}	VT _{incongruent} VP _{mismatch}	-4.85	.00000127
	VT _{congruent} VP _{mismatch}	VT _{incongruent} VP _{mismatch}	-2.90	.00374
S2	VT _{congruent} VP _{match}	VT _{incongruent} VP _{match}	-4.51	.00000664
	VT _{congruent} VP _{match}	VT _{congruent} VP _{mismatch}	-1.31	.189
	VT _{congruent} VP _{match}	VT _{incongruent} VP _{mismatch}	-4.87	.00000111
	VT _{incongruent} VP _{match}	VT _{congruent} VP _{mismatch}	-4.87	.00000110
	VT _{incongruent} VP _{match}	VT _{incongruent} VP _{mismatch}	-2.94	.00329
	VT _{congruent} VP _{mismatch}	VT _{incongruent} VP _{mismatch}	-5.25	.000000153
S3	VT _{congruent} VP _{match}	VT _{incongruent} VP _{match}	-2.85	.00436
	VT _{congruent} VP _{match}	VT _{congruent} VP _{mismatch}	-2.36	.0184
	VT _{congruent} VP _{match}	VT _{incongruent} VP _{mismatch}	-4.80	.00000162
	VT _{incongruent} VP _{match}	VT _{congruent} VP _{mismatch}	-0.390	.697
	VT _{incongruent} VP _{match}	VT _{incongruent} VP _{mismatch}	-3.83	.000128
	VT _{congruent} VP _{mismatch}	VT _{incongruent} VP _{mismatch}	-4.15	.0000338
S4	VT _{congruent} VP _{match}	VT _{incongruent} VP _{match}	-3.07	.00217
	VT _{congruent} VP _{match}	VT _{congruent} VP _{mismatch}	-1.17	.244
	VT _{congruent} VP _{match}	VT _{incongruent} VP _{mismatch}	-2.50	.0125
	VT _{incongruent} VP _{match}	VT _{congruent} VP _{mismatch}	-2.82	.00488
	VT _{incongruent} VP _{match}	VT _{incongruent} VP _{mismatch}	-0.378	.705
	VT _{congruent} VP _{mismatch}	VT _{incongruent} VP _{mismatch}	-2.62	.00893
S5	VT _{congruent} VP _{match}	VT _{incongruent} VP _{match}	-0.543	.587
	VT _{congruent} VP _{match}	VT _{congruent} VP _{mismatch}	-1.03	.303
	VT _{congruent} VP _{match}	VT _{incongruent} VP _{mismatch}	-1.62	.106
	VT _{incongruent} VP _{match}	VT _{congruent} VP _{mismatch}	-0.900	.368
	VT _{incongruent} VP _{match}	VT _{incongruent} VP _{mismatch}	-1.61	.107
	VT _{congruent} VP _{mismatch}	VT _{incongruent} VP _{mismatch}	-0.897	.369
S6	VT _{congruent} VP _{match}	VT _{incongruent} VP _{match}	-2.21	.0270
	VT _{congruent} VP _{match}	VT _{congruent} VP _{mismatch}	-0.358	.720
	VT _{congruent} VP _{match}	VT _{incongruent} VP _{mismatch}	-2.92	.00354
	VT _{incongruent} VP _{match}	VT _{congruent} VP _{mismatch}	-2.64	.00837
	VT _{incongruent} VP _{match}	VT _{incongruent} VP _{mismatch}	-1.03	.302
	VT _{congruent} VP _{mismatch}	VT _{incongruent} VP _{mismatch}	-3.20	.00140
S7	VT _{congruent} VP _{match}	VT _{incongruent} VP _{match}	-2.52	.0118
	VT _{congruent} VP _{match}	VT _{congruent} VP _{mismatch}	-3.62	.000296
	VT _{congruent} VP _{match}	VT _{incongruent} VP _{mismatch}	-4.41	.0000103
	VT _{incongruent} VP _{match}	VT _{congruent} VP _{mismatch}	-2.07	.0381
	VT _{incongruent} VP _{match}	VT _{incongruent} VP _{mismatch}	-3.15	.00166
	VT _{congruent} VP _{mismatch}	VT _{incongruent} VP _{mismatch}	-1.29	.197

Table B: Experiment 1 correlations between responses to S3 and SCR to threat

Condition	r_t	p	BF ₁₀	Bayes factor robustness	
				Max BF ₁₀	Stretched beta prior width
VT _{congruent} VP _{match}	-.288	.156	1.04	1.39	0.227
VT _{incongruent} VP _{match}	-.167	.392	0.464	1.00	0.0001
VT _{congruent} VP _{mismatch}	.080	.684	0.339	1.00	0.0001
VT _{incongruent} VP _{mismatch}	-.307	.101	1.22	1.56	0.257

Table C: Experiment 1 reaction time analysis

Two-tailed paired samples *t*-tests and two-sided paired samples Bayesian *t*-tests; mean±SE values for VT_{congruent}VP_{match} (500±7.11ms), VT_{incongruent}VP_{match} (496±7.56ms), VT_{congruent}VP_{mismatch} (502±7.23ms), VT_{incongruent}VP_{mismatch} (499±7.45ms).

Compared conditions		t(47)	p	BF ₁₀	Bayes factor robustness	
					Max BF ₁₀	Cauchy prior width
VT _{congruent} VP _{match}	VT _{incongruent} VP _{match}	0.997	.324	0.250	1.00	0.0005
VT _{congruent} VP _{match}	VT _{congruent} VP _{mismatch}	-0.398	.692	0.169	1.00	0.0005
VT _{congruent} VP _{match}	VT _{incongruent} VP _{mismatch}	0.074	.942	0.157	1.00	0.0005
VT _{incongruent} VP _{match}	VT _{congruent} VP _{mismatch}	-1.30	.201	0.343	1.00	0.0005
VT _{incongruent} VP _{match}	VT _{incongruent} VP _{mismatch}	-0.843	.404	0.219	1.00	0.0005
VT _{congruent} VP _{mismatch}	VT _{incongruent} VP _{mismatch}	0.447	.657	0.172	1.00	0.0005

Table D: Experiment 1 peak acceleration analysis

Two-tailed paired samples *t*-tests and two-sided paired samples Bayesian *t*-tests; mean±SE values for VT_{congruent}VP_{match} (855±46.2cm/s²), VT_{incongruent}VP_{match} (863±50.7cm/s²), VT_{congruent}VP_{mismatch} (861±45.6cm/s²), VT_{incongruent}VP_{mismatch} (857±51.7cm/s²).

Compared conditions		t(47)	p	BF ₁₀	Bayes factor robustness	
					Max BF ₁₀	Cauchy prior width
VT _{congruent} VP _{match}	VT _{incongruent} VP _{match}	-0.267	.791	0.162	1.00	0.0005
VT _{congruent} VP _{match}	VT _{congruent} VP _{mismatch}	-0.228	.820	0.161	1.00	0.0005
VT _{congruent} VP _{match}	VT _{incongruent} VP _{mismatch}	-0.078	.938	0.157	1.00	0.0005
VT _{incongruent} VP _{match}	VT _{congruent} VP _{mismatch}	0.053	.958	0.157	1.00	0.0005
VT _{incongruent} VP _{match}	VT _{incongruent} VP _{mismatch}	0.232	.818	0.161	1.00	0.0005
VT _{congruent} VP _{mismatch}	VT _{incongruent} VP _{mismatch}	0.134	.894	0.158	1.00	0.0005

Table E: Experiment 1 peak velocity analysis

Two-tailed paired samples *t*-tests and two-sided paired samples Bayesian *t*-tests; mean±SE values for $VT_{congruent}VP_{match}$ ($33.4\pm 1.83\text{cm/s}$), $VT_{incongruent}VP_{match}$ ($34.0\pm 1.90\text{cm/s}$), $VT_{congruent}VP_{mismatch}$ ($33.7\pm 1.85\text{cm/s}$), $VT_{incongruent}VP_{mismatch}$ ($33.4\pm 1.99\text{cm/s}$).

Compared conditions		t(47)	p	BF ₁₀	Bayes factor robustness	
					Max BF ₁₀	Cauchy prior width
$VT_{congruent}VP_{match}$	$VT_{incongruent}VP_{match}$	-0.592	.557	0.185	1.00	0.0005
$VT_{congruent}VP_{match}$	$VT_{congruent}VP_{mismatch}$	-0.338	.737	0.166	1.00	0.0005
$VT_{congruent}VP_{match}$	$VT_{incongruent}VP_{mismatch}$	-0.014	.989	0.157	1.00	0.0005
$VT_{incongruent}VP_{match}$	$VT_{congruent}VP_{mismatch}$	0.284	.778	0.163	1.00	0.0005
$VT_{incongruent}VP_{match}$	$VT_{incongruent}VP_{mismatch}$	0.690	.494	0.196	1.00	0.0005
$VT_{congruent}VP_{mismatch}$	$VT_{incongruent}VP_{mismatch}$	0.275	.785	0.163	1.00	0.0005

Table F: Experiment 1 correlations between responses to S3 (ownership) and kinematic variables

	RT					PA					PV				
	Bayes factor robustness					Bayes factor robustness					Bayes factor robustness				
	r _τ	p	BF ₁₀	Max BF ₁₀	Stretched beta prior width	r _τ	p	BF ₁₀	Max BF ₁₀	Stretched beta prior width	r _τ	p	BF ₁₀	Max BF ₁₀	Stretched beta prior width
$VT_{congruent}VP_{match}$	-.025	.832	0.193	1.00	0.0001	-.083	.477	0.264	1.00	0.0001	-.054	.648	0.216	1.00	0.0001
$VT_{incongruent}VP_{match}$	-.174	.119	0.826	1.59	0.102	.010	.931	0.188	1.00	0.0001	-.097	.384	0.297	1.00	0.0001
$VT_{congruent}VP_{mismatch}$.214	.057	1.76	2.83	0.171	-.032	.774	0.197	1.00	0.0001	-.003	.976	0.187	1.00	0.0001
$VT_{incongruent}VP_{mismatch}$.094	.375	0.290	1.00	0.0001	.220	.039	2.00	3.14	0.171	.227	.033	2.36	3.61	0.198

Table G: Experiment 1 correlations between responses to S4 (agency) and kinematic variables

	RT					PA					PV				
	Bayes factor robustness					Bayes factor robustness					Bayes factor robustness				
	r _τ	p	BF ₁₀	Max BF ₁₀	Stretched beta prior width	r _τ	p	BF ₁₀	Max BF ₁₀	Stretched beta prior width	r _τ	p	BF ₁₀	Max BF ₁₀	Stretched beta prior width
$VT_{congruent}VP_{match}$	-.016	.889	0.190	1.00	0.0001	.006	.957	0.188	1.00	0.0001	-.011	.924	0.188	1.00	0.0001
$VT_{incongruent}VP_{match}$	-.021	.851	0.191	1.00	0.0001	.097	.384	0.298	1.00	0.0001	.089	.429	0.275	1.00	0.0001
$VT_{congruent}VP_{mismatch}$	-.214	.055	1.78	2.86	0.171	.108	.332	0.333	1.01	0.0092	.059	.597	0.222	1.00	0.0001
$VT_{incongruent}VP_{mismatch}$	-.069	.528	0.237	1.00	0.0001	.085	.433	0.269	1.00	0.0001	.082	.456	0.260	1.00	0.0001

Table H: Experiment 2 SCR-questionnaire correlations

Statement	VT _{congruent} VP _{match}					VT _{incongruent} VP _{mismatch}				
	Bayes factor robustness					Bayes factor robustness				
	r _τ	p	BF ₁₀	Max BF ₁₀		r _τ	p	BF ₁₀	Max BF ₁₀	
				Stretched beta prior width	Stretched beta prior width				Stretched beta prior width	Stretched beta prior width
S3	-.065	.677	0.272	1.00	0.0001	-.095	.515	0.309	1.00	0.0001
S9	-.081	.597	0.290	1.00	0.0001	-.081	.570	0.290	1.00	0.0001
S10	.093	.547	0.307	1.00	0.0001	-.009	.952	0.244	1.00	0.0001
S11	-.054	.732	0.263	1.00	0.0001	-.088	.540	0.300	1.00	0.0001

Table I: Experiment 2 kinematic-questionnaire correlations for VT_{congruent} VP_{match}

Statement	RT					PA					PV					
	Bayes factor robustness					Bayes factor robustness					Bayes factor robustness					
	r _τ	p	BF ₁₀	Max BF ₁₀		r _τ	p	BF ₁₀	Max BF ₁₀		r _τ	p	BF ₁₀	Max BF ₁₀		
				Stretched beta prior width	Stretched beta prior width				Stretched beta prior width	Stretched beta prior width						
Ownership	S3	-.011	.942	0.236	1.00	0.0001	.062	.680	0.263	1.00	0.0001	.011	.942	0.236	1.00	0.0001
	S9	-.086	.561	0.291	1.00	0.0001	-.079	.591	0.282	1.00	0.0001	-.136	.355	0.403	1.00	0.0092
	S10	.114	.445	0.343	1.00	0.0001	-.059	.694	0.260	1.00	0.0001	-.017	.908	0.237	1.00	0.0001
	S11	-.103	.499	0.320	1.00	0.0001	-.089	.560	0.295	1.00	0.0001	-.060	.692	0.261	1.00	0.0001
Agency	S4	-.218	.134	0.928	1.50	0.146	-.242	.095	1.29	1.90	0.198	-.311	.032	3.86	4.72	0.360

Table J: Experiment 2 kinematic-questionnaire correlations for VT_{incongruent}VP_{mismatch}

Statement	RT						PA						PV			
	r_{τ}	p	BF ₁₀	Bayes factor		r_{τ}	p	BF ₁₀	Bayes factor		r_{τ}	p	BF ₁₀	Bayes factor		
				robustness					robustness					robustness		
				Max BF ₁₀	Stretched beta prior width				Max BF ₁₀	Stretched beta prior width				Max BF ₁₀	Stretched beta prior width	
Ownership	S3	.011	.939	0.236	1.00	0.0001	-200	.155	0.751	1.31	0.102	-157	.263	0.483	1.05	0.0369
	S9	-.185	.180	0.636	1.19	0.0827	-111	.419	0.337	1.00	0.0001	-106	.441	0.327	1.00	0.0001
	S10	.167	.222	0.529	1.09	0.0501	-115	.402	0.345	1.00	0.0001	-150	.274	0.450	1.03	0.0256
	S11	.060	.669	0.261	1.00	0.0001	-026	.853	0.240	1.00	0.0001	0	1	0.235	1.00	0.0001
Agency	S4	-.044	.755	0.249	1.00	0.0001	-263	.064	1.74	2.40	0.227	-340	.016	6.68	7.70	0.436